

35 U.S.C. §103(a) Rejections

The Examiner rejected claims 1 and 2 and 5-7 under §35 U.S.C. §103(a) over Kim et al. (U.S. Patent 5,659,790) in view of Graf (U.S. Patent 6,397,251) and further in view of Zarros (U.S. Patent No. 5,682,384). Applicants respectfully traverse this rejection.

In order to reject a claim under 35 U.S.C. §103(a) the MPEP mandates that three basic criteria must be met.

First, there must be some suggestion or motivation, either in the reference themselves or in knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claimed limitations.

All of these criteria are not met by the combination of references as suggested by the Examiner. Accordingly, Applicants submit that all of the claimed include allowable subject matter and that the entire application is in condition for allowance.

Kim Reference

Kim generally “relates to composing and playing multimedia documents with variable play time on a computer system and, more particularly, to composing and playing multimedia episodes in multimedia documents so that they are presented correctly in time when the document play time is varied.” (column 1, lines 6-12).

In the Office Action, the Examiner agrees that Kim does not teach:

“ resolving the durations of multimedia objects using said information based on actual multimedia object durations and actual delay arrival time of information of multimedia objects to be played.”

In other words, there is no dynamic process for correcting playback due to network delays or playback errors. Simply, if there are any delays during transmission of the objects, the temporal layouts will not be played back properly.

Graf and Zarros References

The Examiner is of the opinion that Graf teaches resolving the durations of multimedia objects using the information based on actual multimedia object durations and delay arrival time of information of multimedia objects to be played, where the relationship between additional time delay and transmission rate can be calculated at col. 4, lines 15-53. However, the Examiner admits in the Office Action (page 4) that the combination of Kim and Graf still do not teach

“ resolving the duration of multimedia objects using the information based on actual multimedia object durations and actual delay arrival time of information of multimedia objects to be played.”

It is the understanding of Applicants that Graf provides a time delay for the presentation of a multimedia file in order to account for the delayed arrival of frames at the receiver due to the spreading of the transmission of these frames over time. This is accomplished by a system of distribution of multimedia files by file servers over an arbitrary network for information transfer, like, wide area networks or local area networks. The system comprises a sender side 1 wherein a video file is read from a mass storage device 2 and then sent across a network with the help of a rate control device. A receive buffer 4 buffers the video output before being read by a video decoder 5. The system.

Now, the Examiner asserts that Zarros supplies the missing elements of Kim and Graf by stating that Zarros teaches “resolving the durations of multimedia objects using the information based on actual multimedia object durations and actual delay arrival time of information of multimedia objects to be played (find out whether packets...in order to *estimate* the actual time delay of the packets; col.1, lines 58-67).” (emphasis added). It is clearly noted in the Zarros reference that an estimation is used, which is different than that of the claimed invention.

More specifically, Applicants disagree that the discussion in the “Description of the Prior Art” section (or any other section) of Zarros contemplates the missing elements

of the claimed invention. The discussion at col.1, lines 58-67 refers to methods taught in an IEEE/ACM publication that deals with synchronization according to generation times of packets. This method involves *estimating* actual time delays of packets of participants. As can be determined from the cited section and beyond, the technique is centered on an *estimation* of “actual time delays”. It stands to reason that an “estimation” can never be the “actual” time delays. Zarros is using an *estimation* technique to determine average times. Scrutiny of the Examiner’s cited passage and beyond to col. 2, line 2, confirms again that Zarros is directed to an *estimation* of actual time delays, not the actual time delays themselves.

In further addressing the remaining teachings of Zarros overall, the Zarros invention is directed to “a mechanism at the receiver to *estimate* the playback time of the packets using the concept of the reference time or *average* arrival times.” (col. 2, lines 44-45) (emphasis added). Further examination at col. 2, lines 41 to col. 3, line 22, shows that Zarros is utilizing estimations, average arrival times, and statistical techniques. In contrast to the present invention, Zarros never, in fact, uses or even remotely contemplates “actual delays.” Applicants further submit that the essential concept of Zarros, “reference time,” is also itself an estimation based on an average as defined at col. 2, ll. 56-59, col. 5, ll. 53-56, col. 6, ll. 42-44, and other instances. Many instances throughout Zarros describe estimation of arrival times, estimation of reference times, and even an error in Zarros’ method in *estimating* the references times (see, col. 12, 63-65). But, never does this reference discuss the use of actual times.

In contrast, the present invention is directed to the transmission and reception of multimedia files that automatically compensate for network delays or playback delays. In the present invention, unlike Graf, no pre-calculation of delays (prior to transmission of the multimedia) is required and unlike Zarros estimations of packet delays are not required. Nor does the present invention concern itself with other delay issues such as jitter or re-transmissions. The mechanisms of the present invention accommodates actual delays automatically since any actual delays that may occur during transmission of a multimedia file to an output device are compensated by adjusting the relative timing of the multimedia objects that has been received at the client. As stated above, the need to pre-calculate any delay factor before transmission (as is necessary in Graf) or estimate

packet delays (as necessary in Zarros) is a significant inconvenience as it takes extra effort and time, which this present invention is capable over overcoming thus providing many advantages over any of the prior art of record, and a combination thereof.

Therefore, Kim, Graf or Zarros, alone or in combination, does not even remotely suggest or teach using "the actual delayed arrival time of information..." (emphasis added) of claim 1. Applicants thus submit that the Examiner has failed to provide a prima facie case of obviousness and that the claimed invention is clearly distinguishable over the prior art of record and thus includes allowable subject matter. Claim 2, 5-7 are dependent claims of independent claim 1, which Applicants believe is patentably distinct and is therefore drawn to allowable subject matter.

Conclusion

In view of the foregoing amendments and remarks, Applicants submit that the combination of Kim, Graf and Zarros do not teach all the features of the claimed invention and that it is not obvious to combine these teachings, and if combined, cannot produce the features of the claimed invention. Further, Applicants submits that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicant hereby makes a written petition for extension of time if needed. Please charge any deficiencies and credit any overpayment of fees to Attorney's Deposit Account No. 23-1951.

Respectfully submitted,



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